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EXAMINER WEI, ZHENG				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary**Application No.**

10/621,772

Applicant(s)

O'BRIEN, WAYNE PATRICK

Examiner

ZHENG WEI

Art Unit

2192

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Remarks

1. This office action is in response to the amendment filed on 07/15/2008.
2. Claims 35-54 have been canceled.
3. Claims 1, 7, 13, 19, 20, 21, 25, 26, 29, 30, 33 and 34 have been amended.
4. Claims 1-34 remain pending and have been examined.

Response to Arguments

5. Applicant's arguments filed on 07/15/2007, in particular on pages 18-19, have been fully considered but they are not persuasive. For example:
 - At page 18, the second and third paragraphs, the Applicants submit that Garloff fails to disclose, teach, or suggest the following elements recited in amended independent Claim 1: "accessing a plurality of domain rules for a military theory, each domain rule being invariant, the plurality of domain rules comprising a plurality of military theory domain rules setting an objective to destroy an enemy's combat forces; displaying a plurality of business rules for the military theory, each business rule being variable, the plurality of business rules comprising a plurality of rules of engagement". The Applicants further indicates that "the Garloff rules are for generating source code, but are neither invariant military theory domain rules setting an objective to destroy an enemy's combat forces nor variable rules of engagement. Accordingly, Garloff fails to disclose, teach, or suggest the above elements of Claim 1".

However, the Examiner respectfully disagrees.

It should be noted that the amended claim 1 which recites the new limitation about "a plurality of military theory domain rules setting an objective to destroy an enemy's combat forces", does not further define the fundamentally and/or structurally difference between domain rules (knowledge bases), rules of engagement and military theory domain rules. All the rules including the domain rules (knowledge bases), rules of engagement and military theory domain rules as the specification disclosed basically contain the same elements including rules, logic, specification and directions for generating computer code (see for example, p.7, lines 5-6, "Code generator 44 generates code 68 according to model 64"). Therefore, the code generator only generates computer program code according to the rule models. Of course, different rule models will direct code generator generating different program codes for different purposes including the code for military objective. Moreover, the "objective to destroy an enemy's combat forces" is merely for the intend use of the generated program code, but does not further limit the scope of the claim. Prior art Garloff discloses using rule models (knowledge bases) to generate program code to implement, perform and/or realize the logic, rules and requirement in the rule models (knowledge bases) (see for example, Fig.1B and related text; also see col.3, lines46-47, "Knowledge Base contains the rules and directions for generating source code from the specifications"). Therefore, it would have been obvious to one having ordinary skill in the art at

the time the invention was made to use military theory domain rules and/or rules of engagement to generate source code for military objective and/or usage and thus claim 1 is still obvious in view of Garloff's discourse.

- At page 19, second paragraph, the Applicants submit that Garloff also fails to disclose, teach, or suggest the following elements recited in amended independent claim 21 about "military theory rules for a military theory", "legislated laws associated with the military theory" and "rules of engagement". However, as discussed above, the claim does not explicitly disclose the fundamentally or structurally difference among rules, rules of engagement and military theory rules that will cause the code generator works differently. Therefore, at the code generator point of view, said rules/laws are processed in the same ways to generated program code, but for the different purpose or usage. Therefore, as Garloff disclosed about using rule models (knowledge bases) including logic, rules, specification and directions to generate program code to implement, perform and/or realize the logic, rules and requirement in the rule models (knowledge bases) (see for example, Fig.1B and related text; also see col.3, lines46-47, "Knowledge Base contains the rules and directions for generating source code from the specifications"), still teaches the limitation as the Applicants argued.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 1-34 are rejected under 35 U.S.C. 103(a) as being unpatentable by Garloff (Garloff et al., US 5,699,310).

Claim 1:

Garloff discloses a method, a system and procedure logic for designing a computer program, comprising:

- accessing a plurality of domain rules, each domain rule (GENERATION KNOWLEDGE BASE) being invariant, the plurality of domain rules comprising a plurality of military theory domain rules setting an objective to destroy an enemy's combat forces (see for example, Fig.1A, Fig.1B, "GENERATION KNOWLEDGE BASES INCLUDE: GENERATION RULES" and related text; also see Fig.2, "OPEN KBASE(S) AND DISPLAY INITIAL WINDOW" and related text; also see col.31, line 27-col.32, line 18 about computer system)
- displaying a plurality of business rules, each business rule (DESIGN KNOWLEDGE BASES and SPECIFICATIONS KNOWLEDGE BASE) being variable, the plurality of business rules comprising a plurality of rules of engagement (rules in KBASES)(see for example, Fig.2, "OPEN KBASE(S) AND DISPLAY INITIAL WINDOW" and related text);

- selecting one or more rules of the plurality of rules engagement in response to a user selection (see for example, Fig.2, "CHANGE KBASE" and Fig.3 and related text at col.9, lines 25-31);
- customizing the one or more rules of engagement (see for example, Fig.3,"CHANGE A KBASE" and related text);
- associating the one or more rules of engagement with a procedure (see for example, Fig.1A, Fig.1B, "DESIGN KNOWLEDGE BASES", "SPECIFICATIONS KNOWLEDGE BASE", "INHERITANCE ENGINE" and related text);
- associating the military theory domain rules with the procedure (see for example, Fig.1A, Fig.1B, "GENERATION KNOWLEDGE BASE" and "INHERITANCE ENGINE" and related text);
- displaying a model representing the procedure (see for example, Fig.1A "FULLY INHERITED VIEW OF OBJECTS" and related text); and
- generating a code corresponding to the procedure in order to design a computer program (see for example, Fig.1A, "GENERATION PROCESS", "SOURCE CODE" and related text).

But does not explicitly disclose the rules are for a military theory. However, because the structure/definition about military theory has not been defined, the limitation of the military theory and/or rule of engagement can be treated as rules and directions as in Garloff (Fig.1B and related text; also see col.3, lines46-47, "Knowledge Base contains the rules and directions for generating source code

from the specifications") and has no impact to the scope of claim. It is obvious that cited rules from Garloff could be the rules for military theory or for any other theories that are non-military theory. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to design, access and display a plurality of domain/business rules also can be applied for a military theory.

Claim 2:

Garloff further discloses the method of claim 1, further comprising:

- collecting the domain rules and the business rules (see for example, Fig.1A, Fig.1B, "DESIGN KNOWLEDGE BASES", "SPECIFICATIONS KNOWLEDGE BASE", "GENERATION KNOWLEDGE BASES", "INHERITANCE ENGINE" and related text);
- allocating the domain rules and the business rules to a plurality of use cases;
- realizing the use cases (see for example, Fig.7A and related text); and
- assessing the domain rules and the business rules in accordance with the realization (see for example, Fig.2, "CHECK SPECIFICATIONS", Fig.6 and related text).

Claim 3:

Garloff also discloses the method of claim 1, further comprising:

- checking a syntax of the code (see for example, Fig.6 and related text, also see col.9, line 66- col.10, line 2, “reviewing Methods for proper syntax”); and
- providing a notification if a syntax error is detected (see for example, Fig.6, “DISPLAY ERRORS” and related text).

Claim 4:

Garloff further discloses the method of claim 1, further comprising:

- checking a logical consistency of the code (see for example, Fig.6, “CHECK ATTRIBUTES AND METHODS FOR REFERENCES AND CORRECTNESS. DISPLAY ERRORS” and related text); and
- providing a notification if a logical inconsistency is detected (see for example, Fig.6, “DISPLAY ERRORS” and related text).

Claim 5:

Garloff also discloses the method of claim 1, further comprising:

- checking a compatibility between the model and the code (see for example, Fig.6, “CHECK ATTRIBUTES AND METHODS FOR REFERENCES AND CORRECTNESS. DISPLAY ERRORS” and related text); and
- providing a notification if an inconsistency is detected (see for example, Fig.6, “DISPLAY ERRORS” and related text).

Claim 6:

Garloff further discloses the method of claim 1, wherein the model is expressed according to a modeling language (see for example, col.5, lines 47-53, "Modeler's language").

Claims 7-12:

Claims 7-12 are a logic (procedure/method) version for performing the claimed method in claims 1-6 addressed above, wherein all claimed limitation functions have been addressed and/or set forth above. Therefore, Garloff's teachings also anticipate claims 7-12.

Claims 13-19:

Claims 13-19 are system version for performing the claimed method as in claims 1-6 addressed above, wherein all claimed limitation functions have been addressed and/or set forth above (see for example, col.31, line 27 – col.32, line18). Therefore, Garloff's teachings also anticipate claims 13-19.

Claim 20:

Claim 20 is another method version for performing the claimed method in claims 1-6 addressed above, wherein all claimed limitation functions have been addressed and/or set forth above. Therefore, Garloff's teachings also anticipate claim 20.

Claim 21:

Garloff discloses a method for managing rules for designing a computer program, comprising:

- accessing a plurality of military theory rules for a military theory (see for example, Fig.1A, Fig.1B, "DESIGN KNOWLEDGE BASES", "SPECIFICATIONS KNOWLEDGE BASE", "GENERATION KNOWLEDGE BASES", "INHERITANCE ENGINE" and related text);
- identifying military theory rules required by the laws as a plurality of domain rules of a military theory, each domain rule being invariant, (see for example, Fig.1B, "INHERITANCE ENGINE" and related text, also see Fig.3, "DISPLAY LIST OF KBASES" and related text);
- designating the other military theory rules as a plurality of business rules of the military theory, the business rules comprising a plurality of rules engagement, each business rule being variable (see for example, (Fig.1B and related text; also see col.3, lines46-47, "Knowledge Base contains the rules and directions for generating source code from the specifications"; also see Fig.3, step "Add a KBASE" and related text));
- storing the rules of engagement (see for example, Fig.3, "CLOSE/OPEN ALL KBASES" and related text); and
- providing a rule of engagement from the stored business rules in response to a request for the business rule (see for example, Fig.3, "DISPLAY LIST OF KBASES" and related text).

but Garloff does not explicitly disclose accessing a plurality of legislated laws associated with the military theory. However, it is obvious that the legislated laws associated with the military theory are some kinds of different rule/requirements for the military. The method used by Garloff to access KBASES which contains generation rules can also be used to accessing laws associated with the any theory/rule/requirement including legislated laws associated with the military theory.

Claim 22:

Garloff further discloses the method of claim 21, further comprising:

- customizing the provided rule of engagement(see for example, Fig.3, "CHANGE A KBASE" and related text);
- associating the customized rule of engagement with a procedure (see for example, Fig.4, "CREATE FULLY INHERITED VIEW OF OBJECT" and related text); and
- generating a code corresponding to the procedure in order to design a computer program (see for example, Fig.2, "GENERATE", Fig.1C, "GENERATION PROCESS", Fig.7A and related text)

Claim 23:

Garloff also discloses the method of claim 21, further comprising:

- associating the domain rules with a procedure (see for example, Fig.1A, Fig.1B, "GENERATION KNOWLEDGE BASE" and "INHERITANCE ENGINE" and related text); and
- generating a code corresponding to the procedure in order to design a computer program (see for example, Fig.2, "GENERATE", Fig.1C, "GENERATION PROCESS", Fig.7A and related text).

Claim 24:

Garloff further discloses the method of claim 21, further comprising:

- allocating the domain rules and the business rules to a plurality of use cases (see for example, Fig.1A, Fig.1B, "GENERATION KNOWLEDGE BASE" and "INHERITANCE ENGINE" and related text; also see Fig.7A and related text);
- realizing the use cases (see for example, Fig.7A, "WRITE SOURCE MODULES TO DISK FILES" and related text); and
- assessing the domain rules and the business rules in accordance with the realization (see for example, Fig.6 and related text for checking).

Claims 25-28 and 33:

Claims 25-28 and 33 are system version for performing the claimed method as in claims 21-24 addressed above, wherein all claimed limitation functions have been addressed and/or set forth above (see for example, col.31, line 27 – col.32, line18). Therefore, they are also obvious by Garloff's teachings.

Claims 29-32:

Claims 29-32 are a logic (procedure/method) version for performing the claimed method in claims 21-24 addressed above, wherein all claimed limitation functions have been addressed and/or set forth above. Therefore, they are also obvious by Garloff's teachings.

Claim 34:

Claim 34 is another method version for performing the claimed method in claims 21-24 addressed above, wherein all claimed limitation functions have been addressed and/or set forth above. Therefore, it is also obvious by Garloff's teachings.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
7. Applicant's arguments with respect to claims rejection have been considered but are not persuasive. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zheng Wei whose telephone number is (571) 270-1059 and Fax number is (571) 270-2059. The examiner can normally be reached on Monday-Thursday 8:00-15:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571- 272-1000.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Z. W./
Examiner, Art Unit 2192

/Tuan Q. Dam/
Supervisory Patent Examiner, Art Unit 2192